ELSEVIER

Volume 299, Numbers 1–2, 15 May 1997

thin solid films

Contents

Letters

Effect of some sodium salts coatings on the high-temperature oxidation of Nimonic-80A alloy at 1173 K 1
M. Misbahul Amin

A study of deuterium permeation through thin BN films 5
R. Checchetto, A. Chayahara, H. Horino, A. Miotello, K. Fujii

Synthesis and Characterization

Interface vibrational spectrum investigation on reactively-sputtered a-Si:H/a-Ge:H multilayer films 10
Y. Wang, H. Xu

On the microstructure and optical properties of $Ba_{0.5}Sr_{0.5}TiO_3$ films 14
F. Tcheliebou, H.S. Ryu, C.K. Hong, W.S. Park, S. Baik

The influence of the electrodeposition parameters on the morphology of organo-transition metal complexes for thin film gas sensor applications 18
J.R. Bates, P. Kathirgamanathan, R.W. Miles

Some aspects of the aerosol–gel process 25
M. Langlet, C. Vautey, N. Mazeas

Phosphor efficiency and deposition temperature in ZnS:Mn A.C. thin film electroluminescence display devices 33
S. Gupta, J.C. McClure, V.P. Singh

Phase formation during the reactive annealing of Cu–In films in H_2S atmosphere 38
C. Dzionk, H. Metzner, S. Hessler, H.-E. Mahnke

Photoactivity enhancement of WS_2 sputtered thin films by use of nickel 45
O. Lignier, G. Couturier, J. Tedd, D. Gonbeau, J. Salardenne

Charge injection in $SrTiO_3$ thin films 53
G.W. Dietz, R. Waser

FMR, XRD and XHRTEM characterization of stresses in an epitaxial Ni–Cu film prepared on MgO(001) by d.c. biased plasma sputter deposition 59
H. Maruyama, H. Qiu, M. Hashimoto, K. Fudaba, H. Nakai, A. Barna, P.B. Barna

Thin film preparation of oligomeric Si-phthalocyanines: thermal stability and sublimation behavior 63
B. Reusch, Ch. Ziegler, T.G. Kwag, M.E. Kenney, W. Göpel

X-ray photoelectron spectroscopy, scanning electron microscopy and optical transmittance studies of indium tin oxide and cadmium sulphide thin films for solar cells 67
M.D. Stoev, J. Touskova, J. Tousek

XRD analysis of ZnO thin films prepared by spray pyrolysis 72
J.L. Van Heerden, R. Swanepoel

Scanning tunneling microscopy combined quartz crystal microbalance for study of NH_3 adsorption on Ag thin film 78
F. Iwata, M. Kawaguchi, H. Aoyama, J. Fukaya, A. Sasaki

Standardisation of test methods for the mechanical properties of thin coatings 82
S.R.J. Saunders, H.R. Vetters

Sol–gel derived PNNZT thin films for micromachined piezoelectric force sensors 88
C. Lee, T. Itoh, T. Suga

Elsevier Science S.A.

High quality optoelectronic grade epitaxial AlN films on α-Al_2O_3, Si and 6H-SiC by pulsed laser deposition 94
R.D. Vispute, J. Narayan, J.D. Budai

Structure and composition studies for silicon nitride thin films deposited by single ion bean sputter deposition..... 104
L. Huang, K.W. Hipps, J.T. Dickinson, U. Mazur, X.D. Wang

Orientation relationships in heteroepitaxial aluminum films on sapphire 110
D.L. Medlin, K.F. McCarty, R.Q. Hwang, S.E. Guthrie, M.I. Baskes

Microstructure properties of $Ba_{0.5}Sr_{0.5}TiO_3$ thin films on Si with conductive $SrRuO_3$ bottom electrodes 115
Q.X. Jia, H.H. Kung, X.D. Wu

Influence of strain on the electronic properties of epitaxial V_2O_3 thin films 119
H. Schuler, S. Klimm, G. Weissmann, C. Renner, S. Horn

Surfaces, Interfaces and Colloidal Behaviour

Microstructural investigation of plasma-sprayed ceramic splats..... 125
L. Bianchi, A. Denoirjean, F. Blein, P. Fauchais

The influence of the inductively-coupled hydrogen plasma on the GaAs surface properties 136
E. Pinčík, M. Jergel, M. Kučera, M. Brunel

Metallurgical, Protective and Hard Layers

Surface characterization of plasma spray metal deposition procedures using X-ray photoelectron spectroscopy 143
J.D. Olivas, C. Mireles, E. Acosta, E.V. Barrera

Electronics, Optics and Opto-electronics

Electroluminescent cell prepared by chemical deposition of ZnS:Mn thin film 149
M. Fukarova-Jurukovska, M. Ristov, A. Andonovski

Langmuir–Blodgett, Biological and Related Films

Properties of 13^2-hydroxy bacteriopheophorbide *a* methylester/behenic acid mixed mono- and multilayers 152
Th. Hanke, O. Korth, I. Rückmann, B. Röder

Photovoltage study of Langmuir–Blodgett films of corbathiene on silicon 161
K. Schaumburg, N.B. Larsen, S. Komolov, N. Gerasimova, A. Morozov

Structural analysis of mixed LB multilayers and superlattice films 165
T. Ivanova, T. Gutberlet, M. Kastowsky, H. Bradaczek

Characterization of poly(3-decylmethoxythiophene) multilayers 169
A. Bolognesi, G. Bajo, D. Comoretto, P. Elmino, S. Luzzati

Thin Film Devices, Sensors and Actuators

Near-infrared tunable response photodetectors based on amorphous/crystalline silicon heterostructures prepared by the r.f. magnetron sputtering technique 173
B.G. Budaguan, A.A. Sherchenkov

Dependence of the *C*49–*C*54 $TiSi_2$ phase transition temperature on film thickness and Si substrate orientation 178
H. Jeon, G. Yoon, R.J. Nemanich

X-ray photoemission and Auger electron spectroscopy analysis of fast responding activated metal oxide silicon carbide gas sensors ... 183
A. Lloyd Spetz, D. Schmeißer, A. Baranzahi, B. Wälivaara, W. Göpel, I. Lundström

Erratum 190

Author Index of Volume 299 191

Subject Index of Volume 299 193

The table of contents of *Thin Solid Films* is included in ESTOC — Elsevier Science Tables of Contents service — which can be accessed on the World Wide Web at the following URL addresses:
http://www.elsevier.nl/locate/estoc or http://www.elsevier.com/locate/estoc

The publisher encourages the submission of articles in electronic form thus saving time and avoiding rekeying errors. A leaflet describing our requirements is available from the publisher upon request.